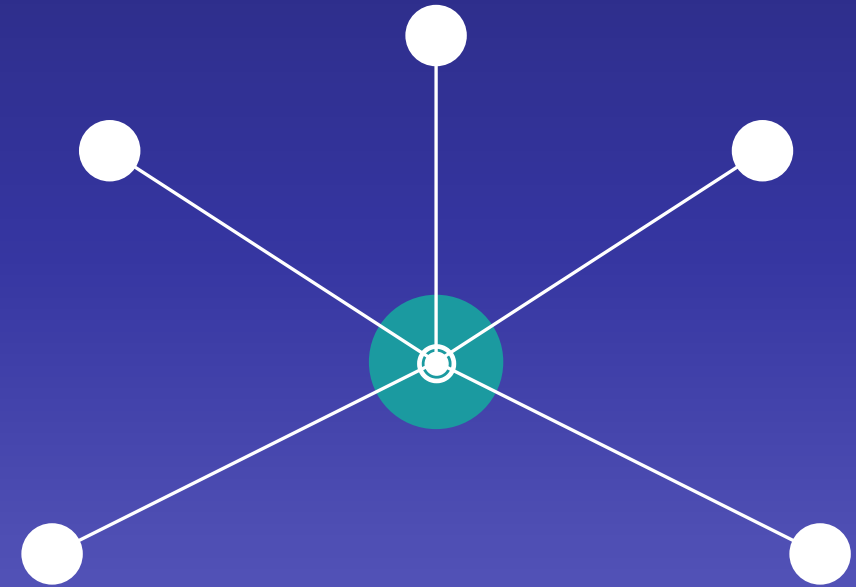
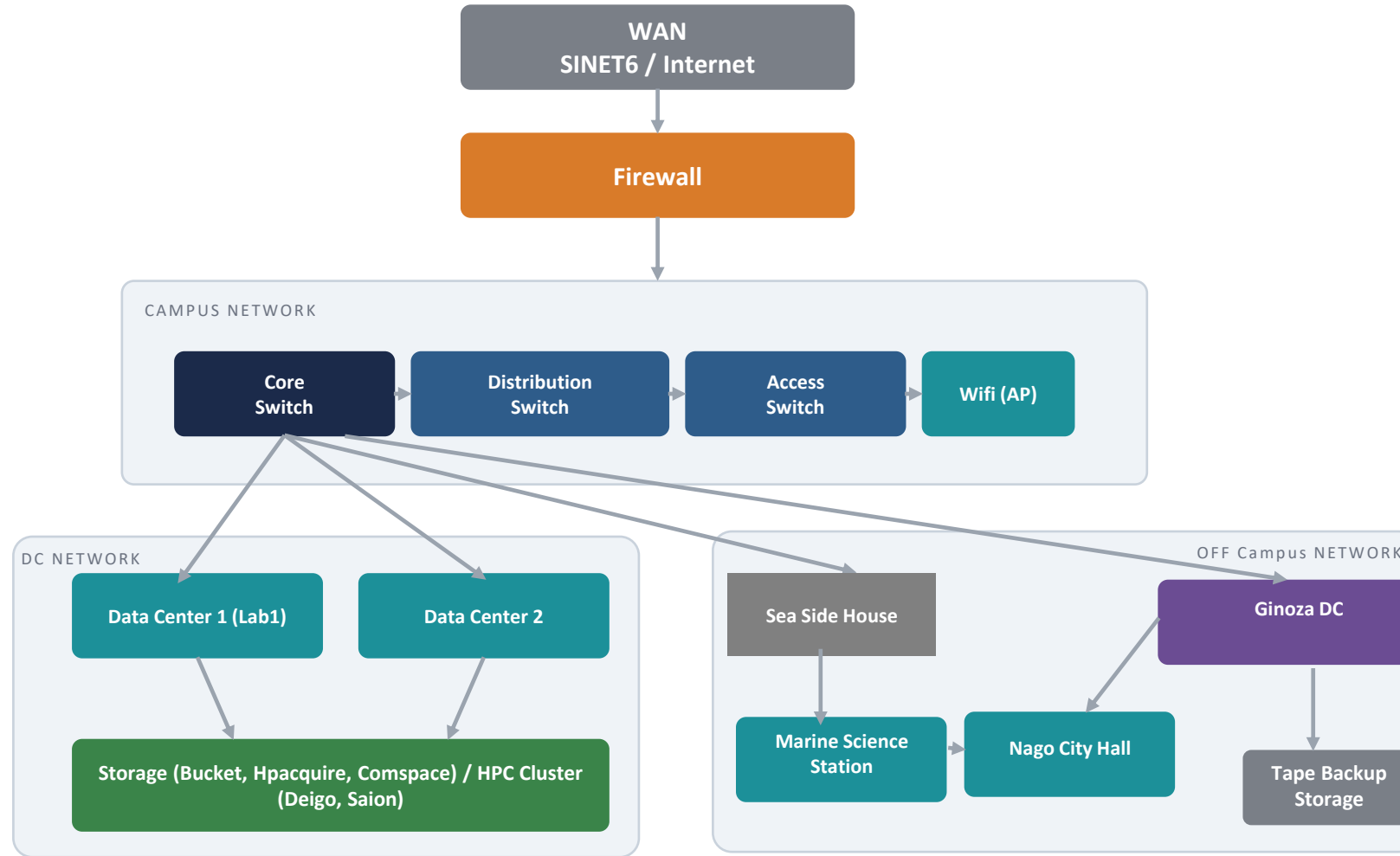


SCDA NETWORK TEAM • SCDA TRAINING WEEK

OIST Network Overview

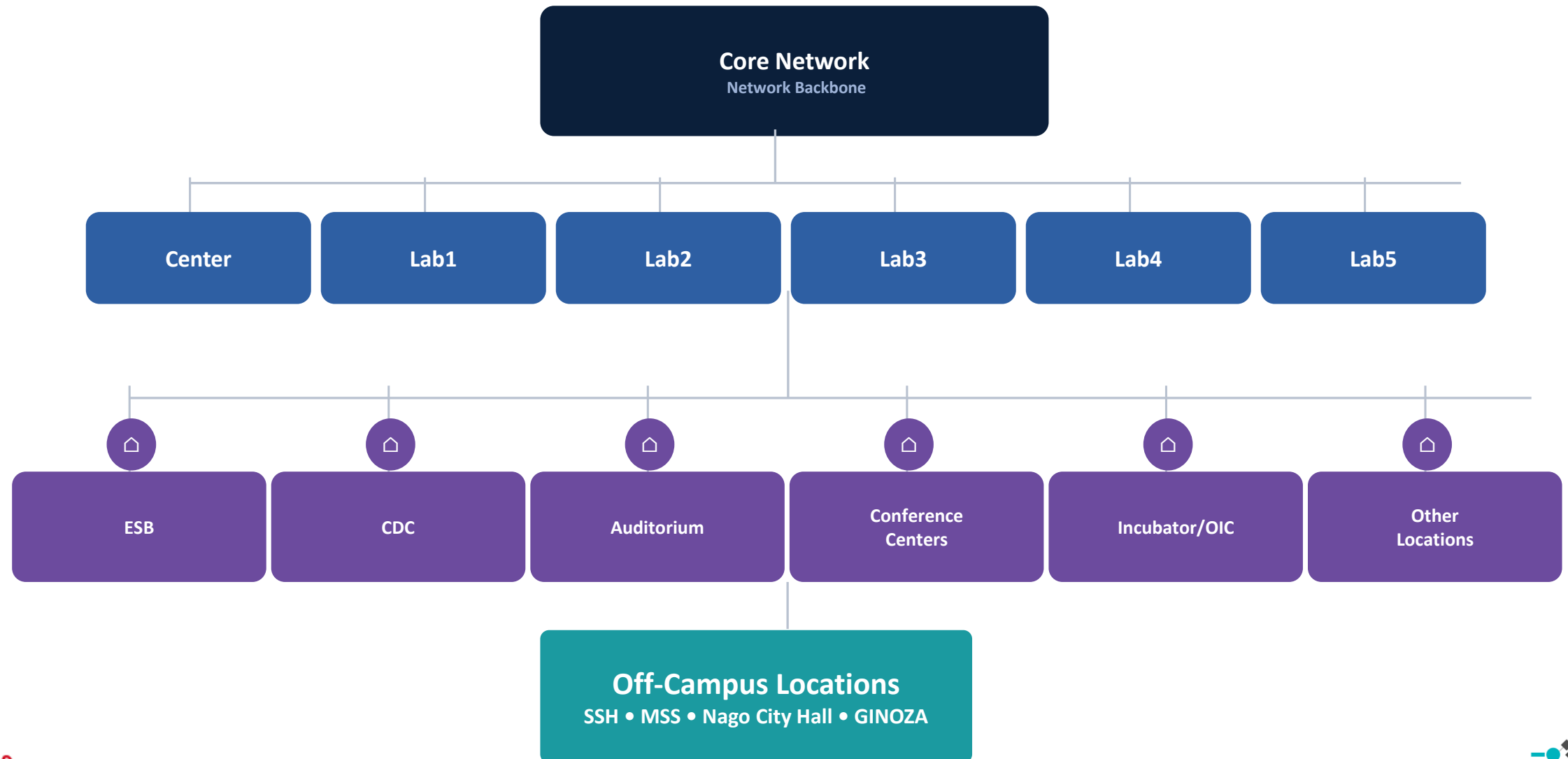


OIST Network Overview — Block Diagram

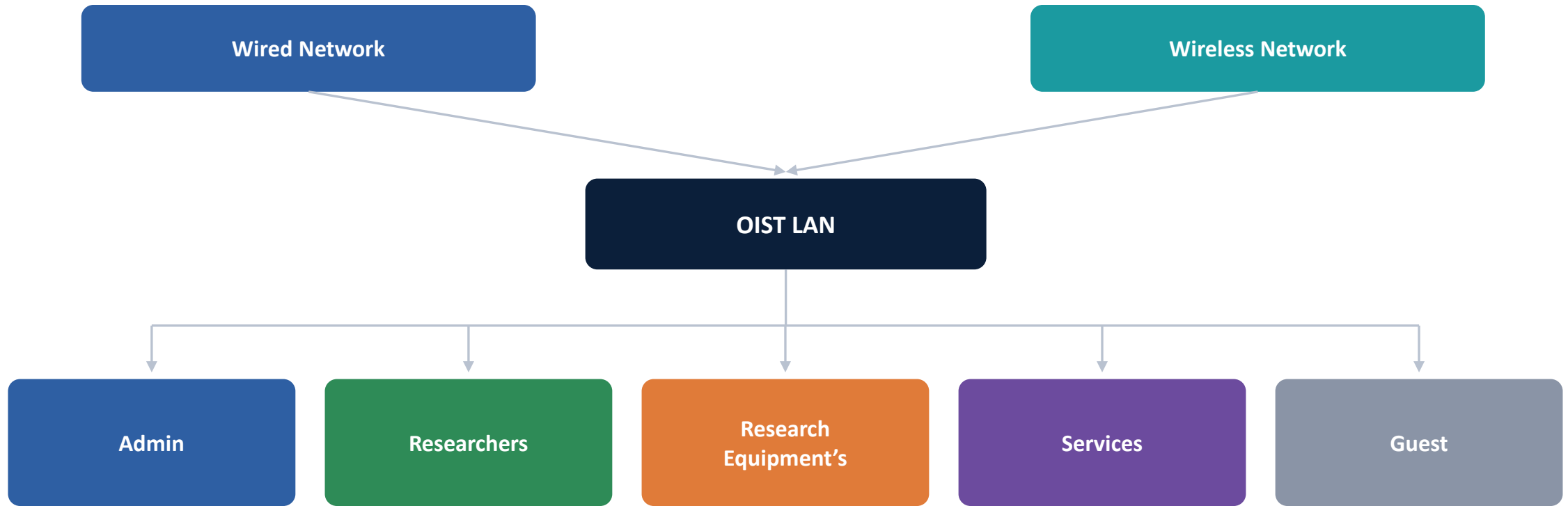


Reference [OISTNet](#)

OIST Campus Network



LAN Overview



Network Segmentation for Users

ADMIN

Administrative Users
(with 802.1x authentication)

RESEARCHERS

Research Users
(with 802.1x authentication)

RESEARCH EQUIPMENT's

Scientific / Research Devices
(with Internet/Without Internet)
[Mac filtering]

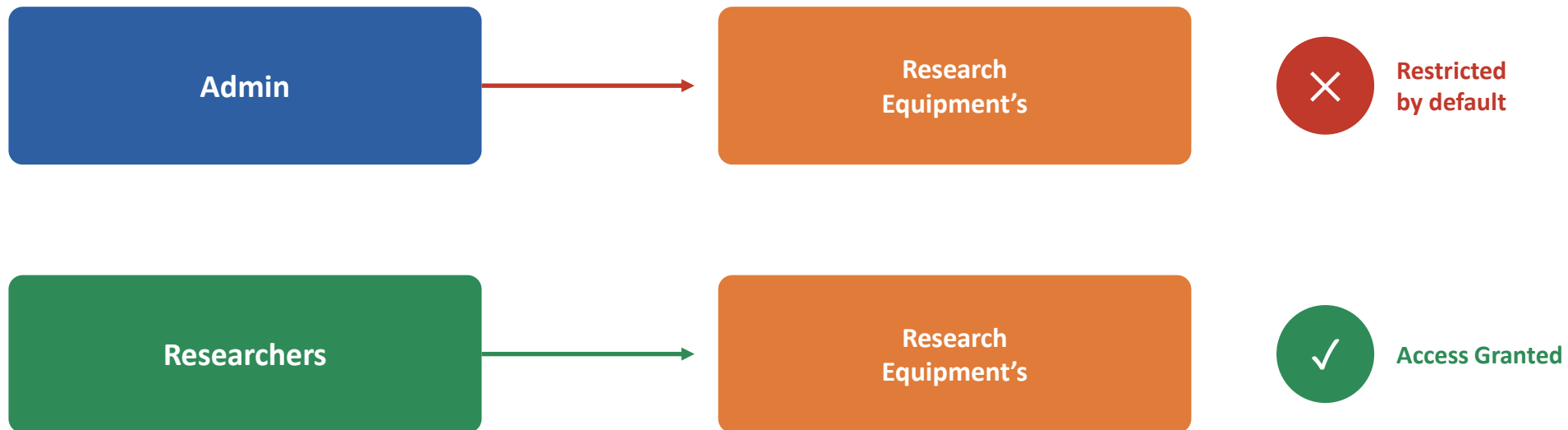
SERVICES

APs • Printers • Telephones • AV •
Other Services

GUEST

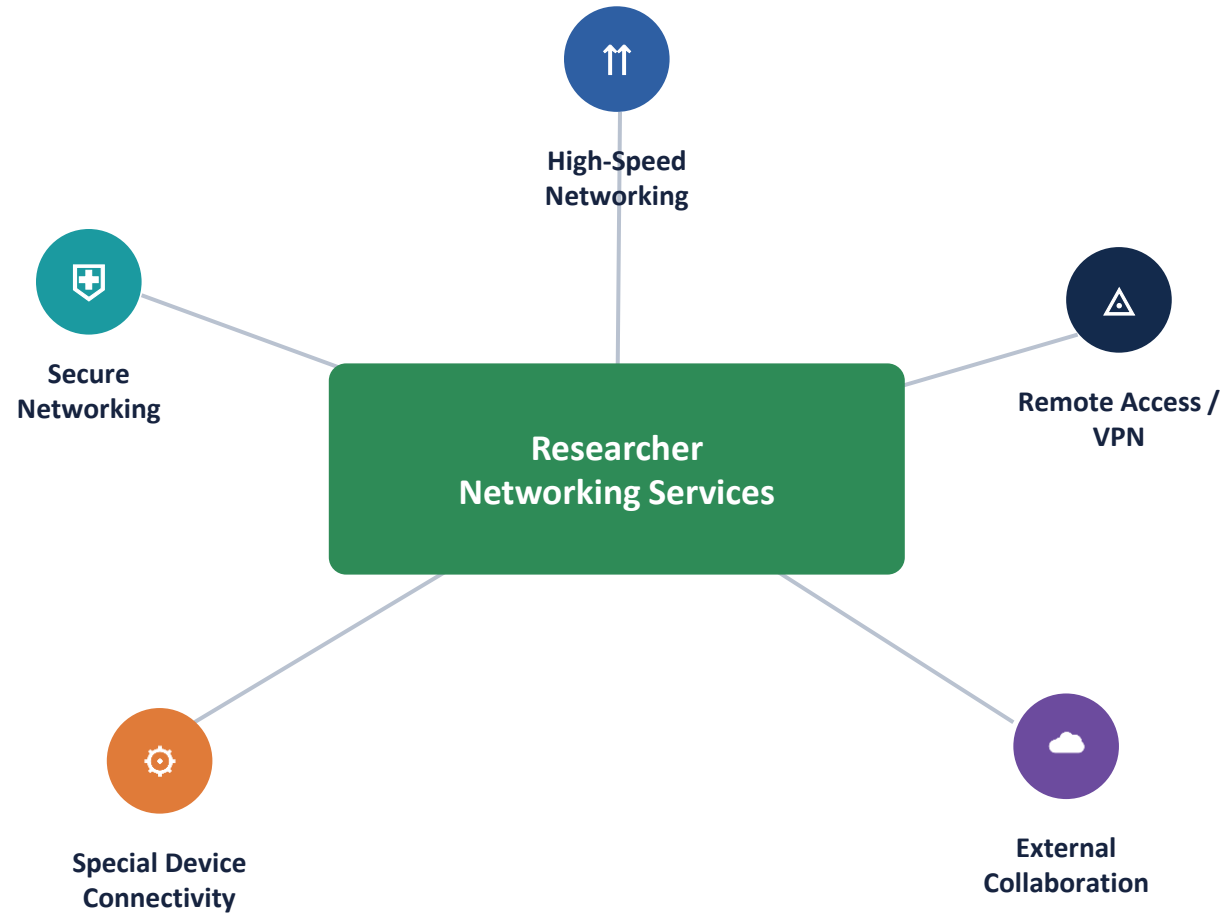
Guest Connectivity
(only Internet)

Access Between Admin, Researchers & Research Equipment's



- Administrative users do not have access to the research equipment's network by default.
- Researchers have access to research equipment's.
- Access is controlled according to role and requirements.

Networking Services for Researchers



High-Speed Networking Connections

STANDARD CONNECTION

Default OIST Wired LAN



1 Gigabit Ethernet (1GbE)

Sufficient for most networking needs.

HIGHER-SPEED REQUIREMENT

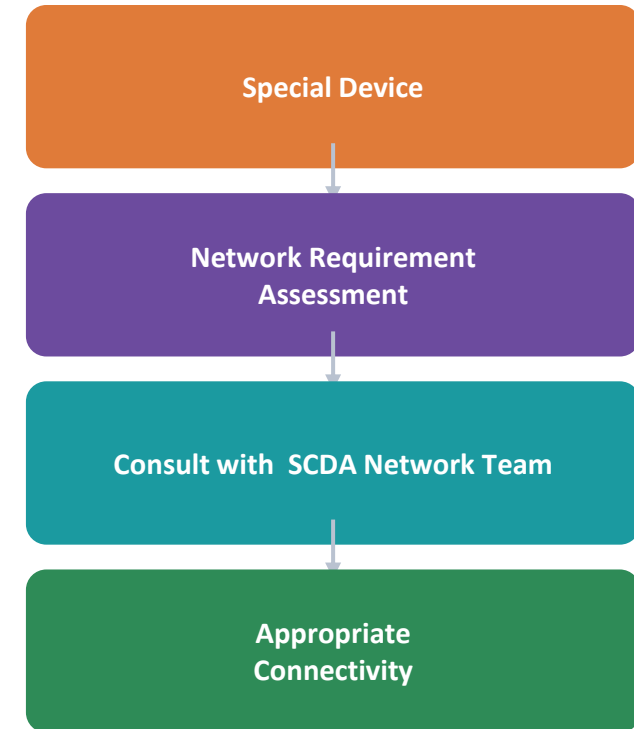
10 Gigabit Fiber/Ethernet (10GbE)



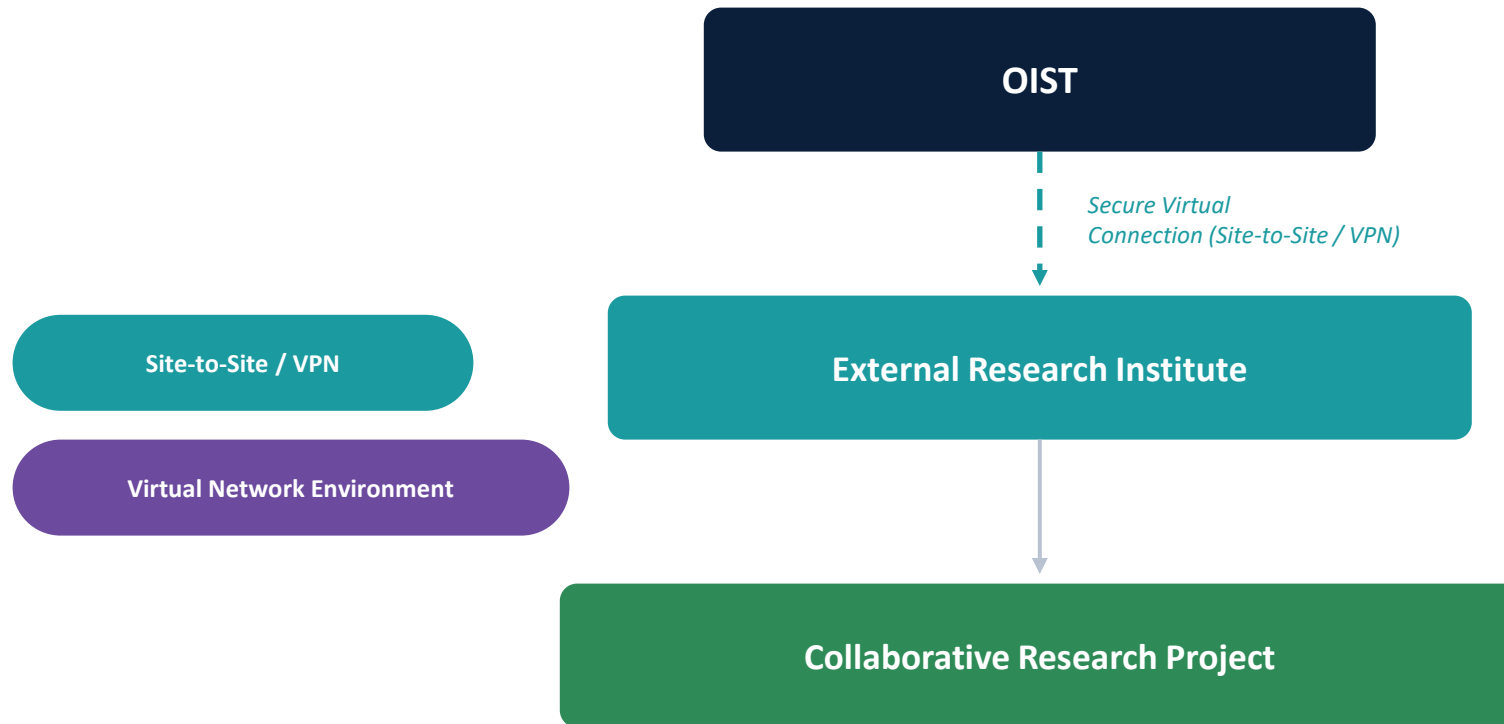
Contact / Request SCDA Network Team

If your research requires a 10GbE or more connection, please contact us at ask-scda@oist.jp

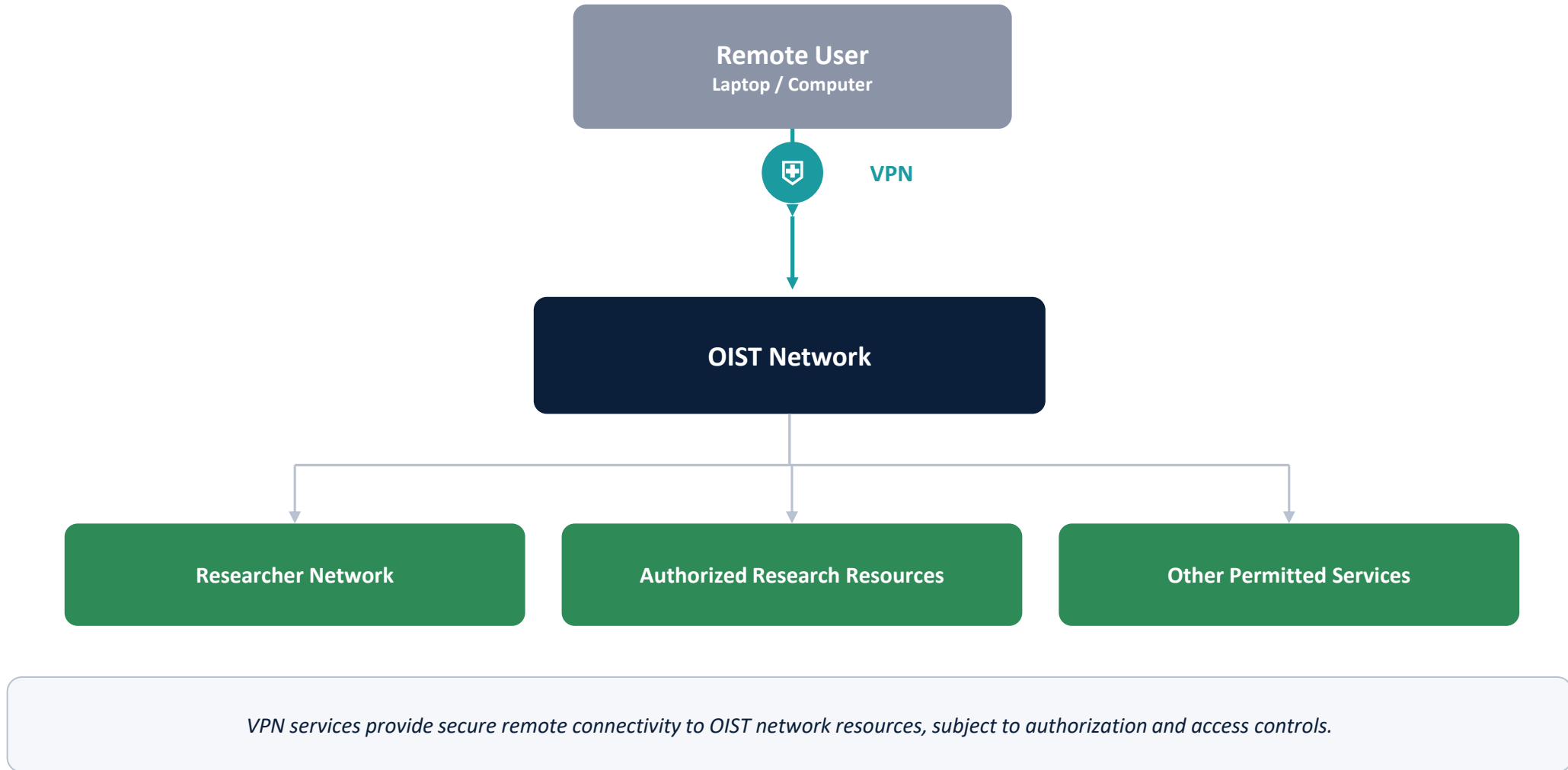
Networking for Special Devices



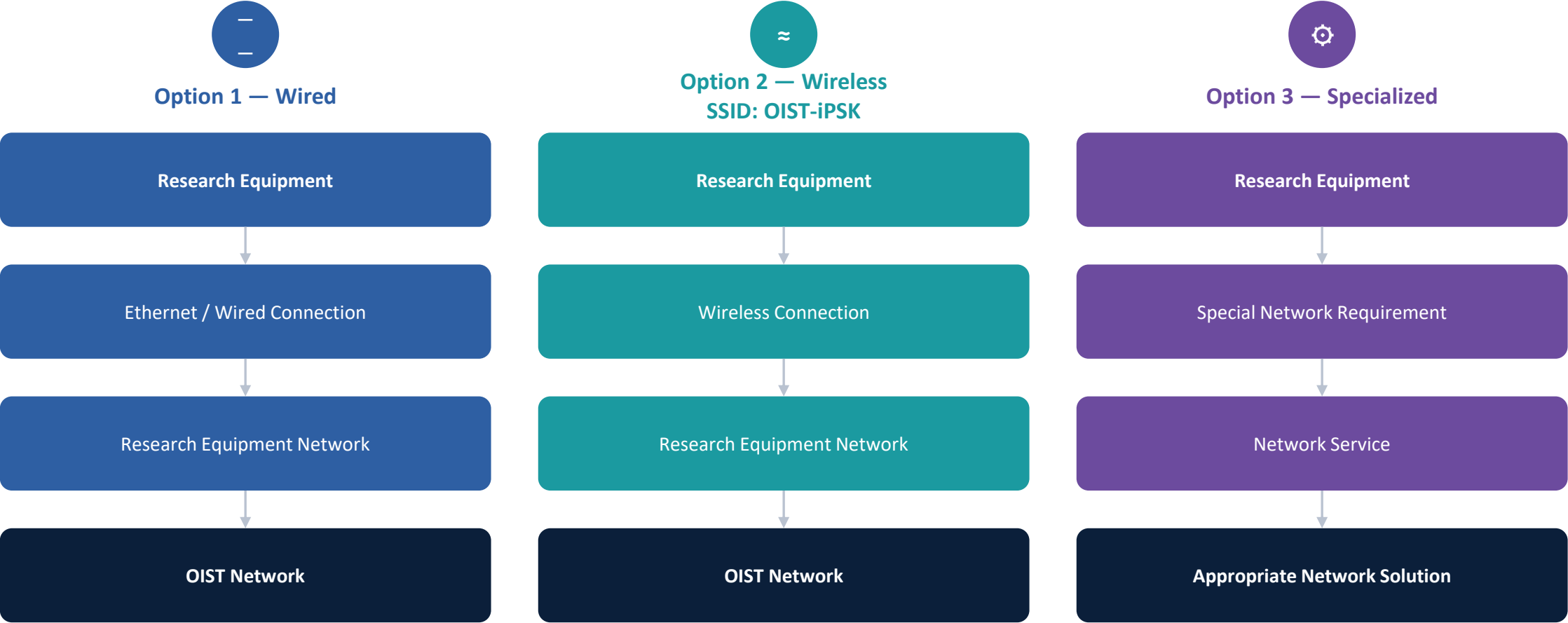
External Collaboration Project Network



VPN Services & Remote Access



How Research Equipment Connects to the Network

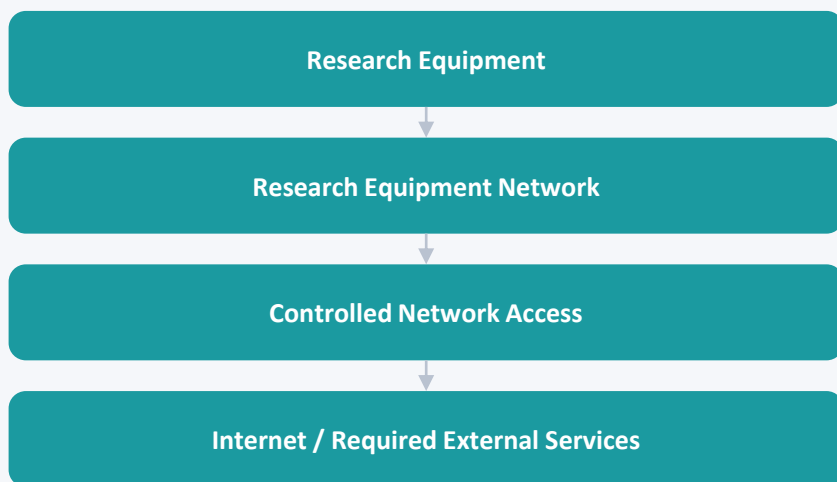


Option 3: for example, Vendors operate in OIST, Incubator, OIC etc.

Research Equipment Classification

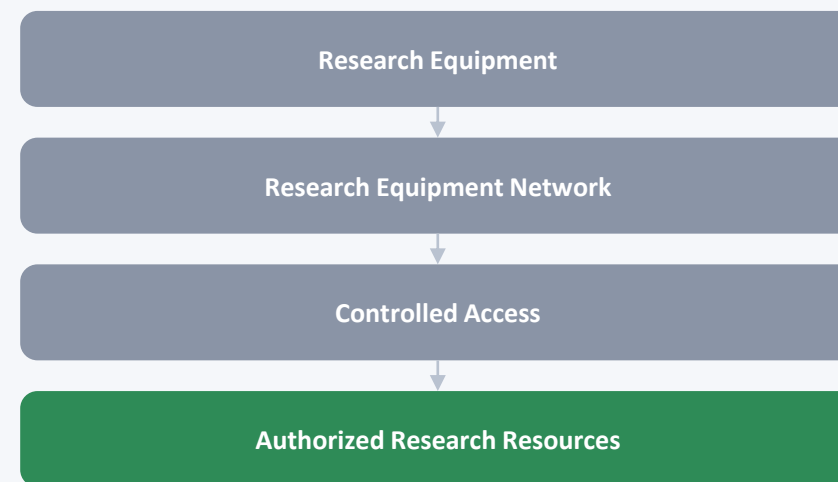
1. Research Equipment WITH Internet Access

- Instruments requiring Internet connectivity
- Equipment communicating with external services
- Equipment needing software / firmware updates
- Systems requiring approved external communication

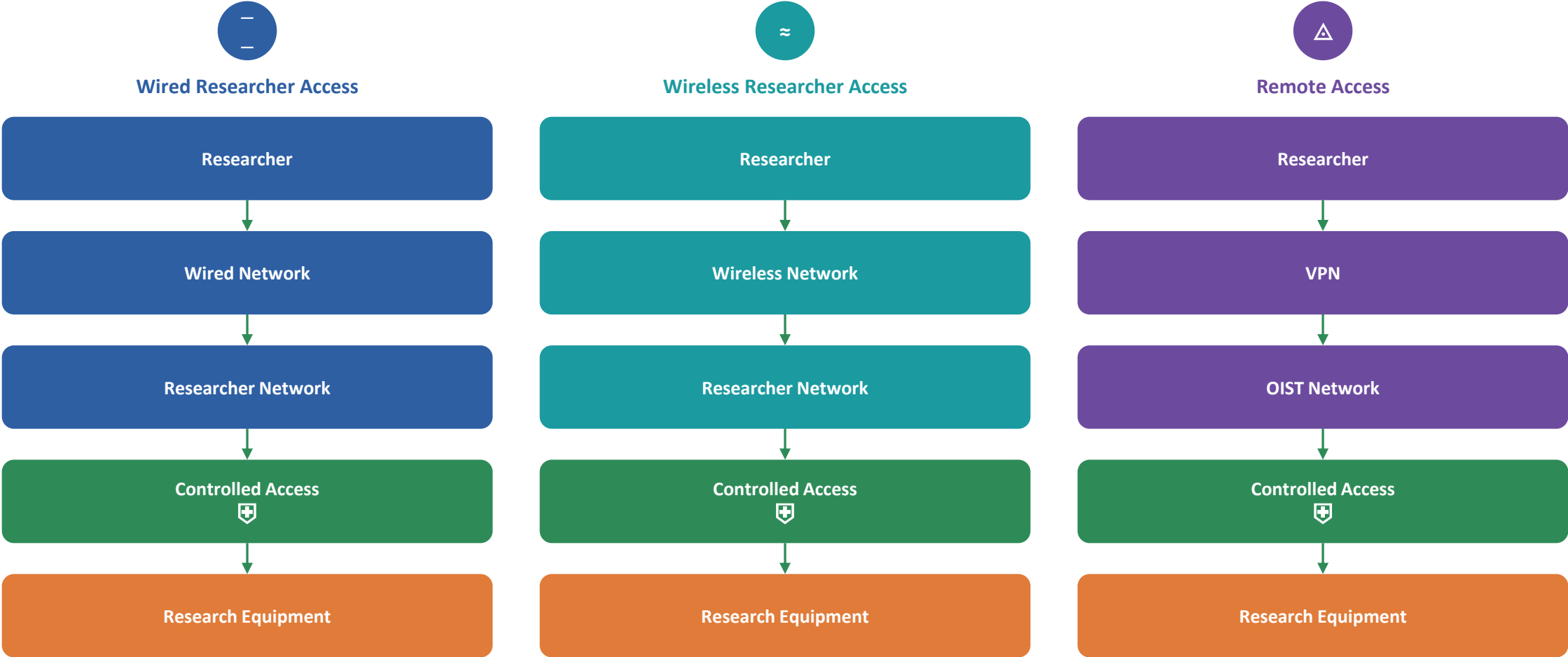


2. Research Equipment WITHOUT Internet Access

- Instruments not requiring Internet or with expired OS (Win XP/7)
- Isolated laboratory equipment
- Equipment using only authorized research systems
- Equipment where Internet is not required

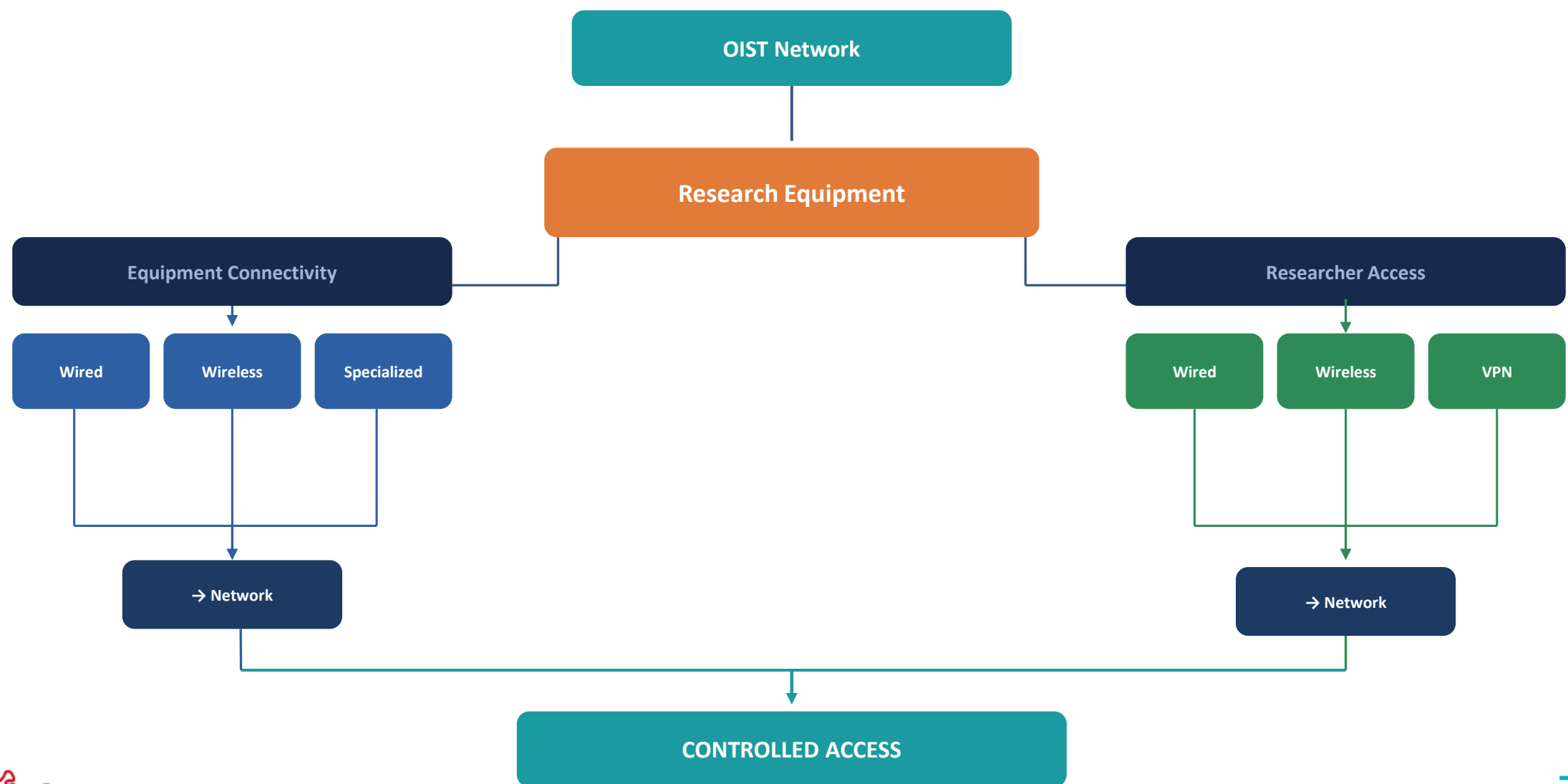


Researcher Access to Research Equipment



Access to research equipment is subject to network policies, authorization, and required access controls.

Complete Research Equipment Architecture



When Should Researchers Contact SCDA Network Service?



10GbE / High-Speed Networking



Secure Networking for Research Data or Equipment



Connectivity for Special Devices



Special Network Protocols



External Research Collaboration Network



Site-to-Site VPN



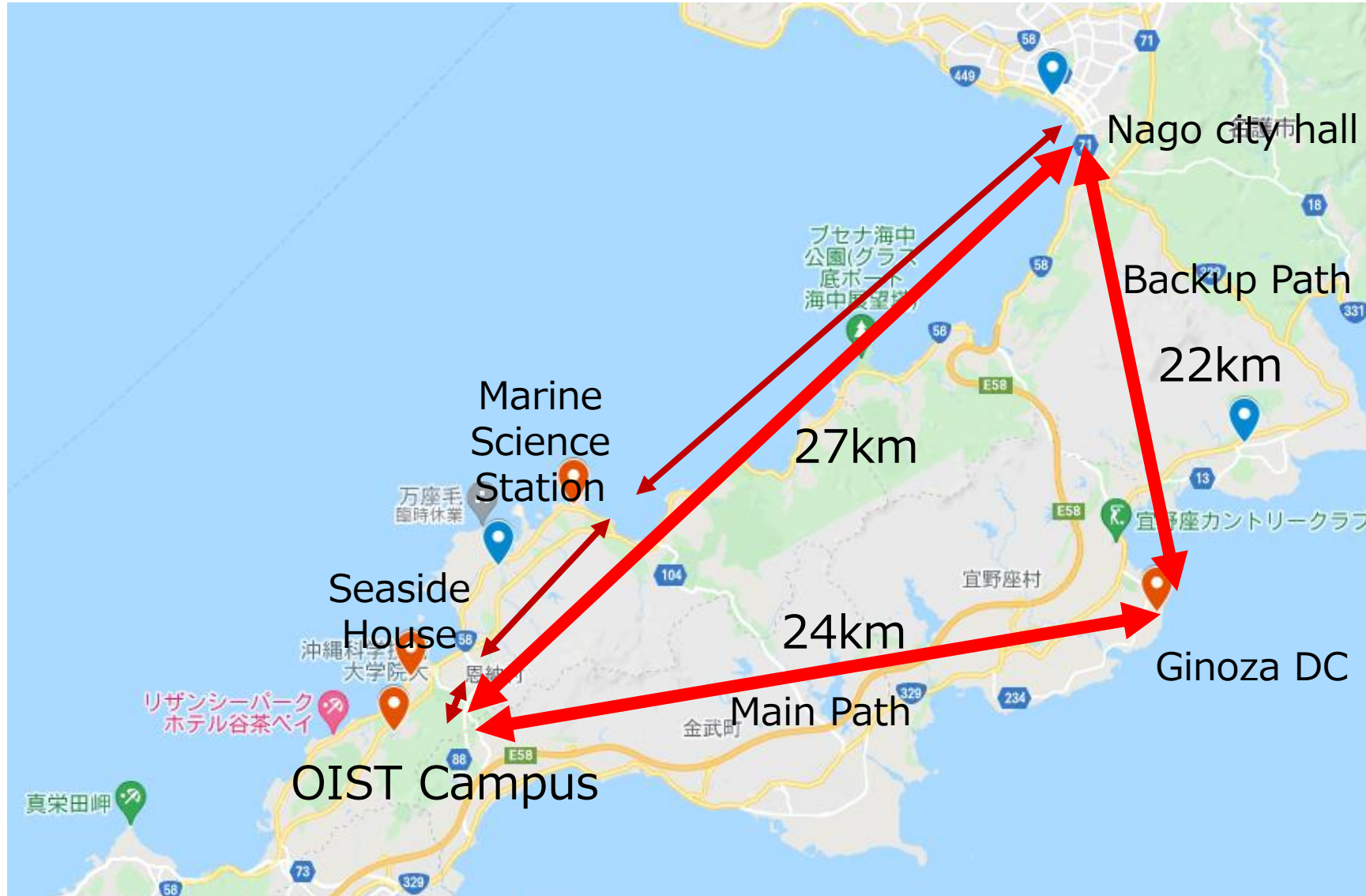
Virtual Network Environment

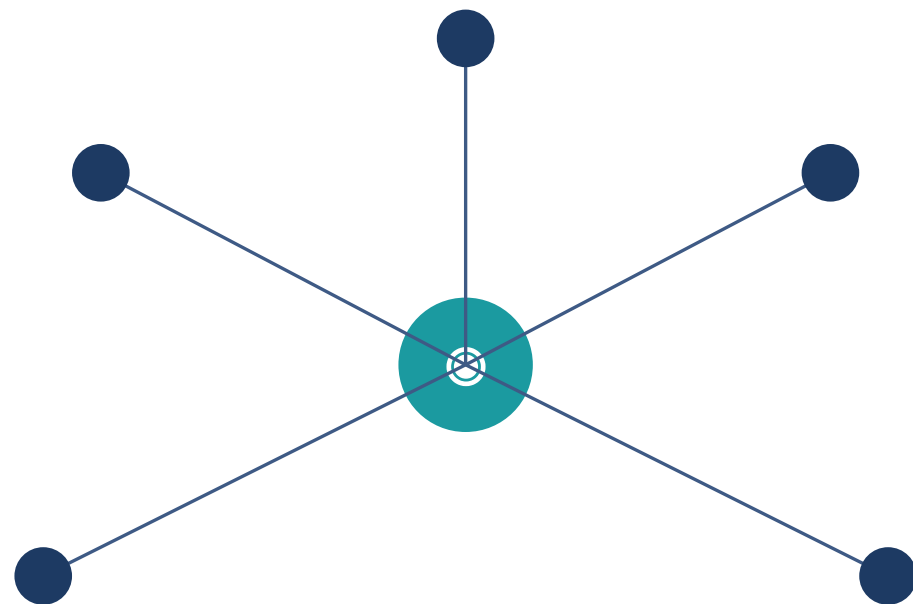


Remote / VPN Access Requirements

Discuss your networking requirements with SCDA Network Team (at ask-scda@oist.jp) before connecting specialized research equipment.

Geographical Location Map





Questions?

Understanding the OIST Network & Research Connectivity

Contact SCDA Network Team at ask-scda@oist.jp